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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/614,771

07/08/2003

Timothy J. Henly

EI-7599

7997

34769

7590

05/17/2006

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,771

Applicant(s)

HENLY, TIMOTHY J.

Examiner

Cephia D. Toomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the amendment filed March 1, 2006 in which claims 1 and 8 were amended. The previous 112, second paragraph rejection is withdrawn in view of the amendment to the claims.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected because the phrase "operable to dissolve" is indefinite. Operable to dissolve is not a positive limitation i.e., the claim boundary is nebulous in scope.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace (US 5,944,858).

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Wallace teaches a fuel composition and additive wherein the fuel is a middle distillate fuel and the additive is a mixture of a manganese carbonyl compound (methylcyclopentadienyl manganese tricarbonyl (MMT)) (see abstract; col. 3, lines 31-50); one or more fuel-soluble alkali or alkaline earth metal containing detergents (overbased calcium sulfonate)(see abstract; col. 4, lines 58-67; col. 5, lines 1-4) and an ashless dispersant (PIB succinimide wherein the PIB has a molecular weight from 500-5000 and is prepared by reacting PIB succinic anhydride tetraethylene pentamine)(see col. 5, lines 46-65).

The amount of the manganese contributed by the manganese compound used in the composition is from 0.1-5 ppm. The amount of the metal contributed by the overbased sulfonate is 5-50 ppm and the amount of the succinimide is 7-10,000 ppm (see col. 13, lines 30-55). Examples 2-4 and 15 contain MMT, overbased calcium sulfonate (TBN 295) and PIB succinimide of tetraethylene pentamine (PIB having a molecular weight of approximately 950 and 1000). Wallace teaches that the overbased sulfonate and succinimide are present in the composition in amount that anticipates the x and y values and that would satisfy the relationship of claim 8 (see examples 2-4 and 15). Wallace teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Wallace differs from the claims in that he does not specifically teach the claimed amount of overbased calcium sulfonate component. However, Wallace teaches that the metal-containing detergents are present in an amount sufficient to supply from 5-50 ppm alkali and/or alkaline earth metal to the fuel

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composition (see col. 5, lines 34-37). This teaching suggests that the amount of detergent present in the composition of Wallace encompasses the range of detergent that is in the present invention.

In the second aspect, Wallace fails to teach that the overbased calcium sulfonate has a TBN of about 300. However, in the examples Wallace teaches that the sulfonates have a TBN of 295. This value is close enough to that of the claimed about 300 that one skilled in the art would expect that the compounds would have the same properties. Furthermore, a TBN of about 300 encompasses a TBN of 295 because the term "about" is a warning that exactitude is not claimed but rather a contemplated variation.

5. Applicant's arguments have been fully considered but they are not persuasive.

6. Applicant argues that Wallace fails to teach the preferred range of the overbased sulfonate.

The examiner respectfully disagrees. Wallace teaches that the metal-containing detergents are present in an amount sufficient to supply from 5-50 ppm alkali and/or alkaline earth metal to the fuel composition (see col. 5, lines 34-37). This teaching suggests that the amount of detergent present in the composition of Wallace encompasses the range of detergent that is in the present invention.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

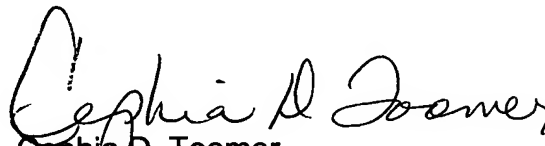
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cephia D. Toomer
Primary Examiner
Art Unit 1714

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